

THE BIRDS OF BANDHAVGARH NATIONAL PARK, M.P.¹

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The paper is a record of the birds seen in Bandhavgarh National Park, Madhya Pradesh over a 4 years period (1986 - 1990, with a few updates and records from 1991 & 1992). 242 species belonging to 53 families were recorded. These include some species whose presence in this area was previously unsuspected. Although some of these records have been treated as unconfirmed, it is likely that a comprehensive survey of the moist forests of NE Madhya Pradesh & neighbouring Orissa will lead to the revision of the status & distribution of a number of species.

The moist forests of Madhya Pradesh that lie within the Gangetic Basin have, in the past, suffered even greater neglect at the hands of ornithologists than the rest of the state. Previous ornithological field-work in central India has generally been confined to areas within the peninsular drainage system (Osmaston 1927, Hewetson 1939, Wright 1942, Newton *et al.* 1986) or, within the Gangetic Basin, to the generally more arid areas of Gwalior (Ali 1939). D'Abreu's list (1935) of 409 species for the then Central Provinces consists of records obtained around Nagpur and the central areas of present day Madhya Pradesh. Hewetson (1955) published a list of 308 species for Madhya Pradesh based on 29 years of observations. However, he too states that only a few days were spent in the northernmost districts and presumably, even less time in what was then Vindhya Pradesh, where Bandhavgarh National Park is located.

Previous to this study, two lists were published of the birds of Bandhavgarh. One by N.K. Sinha (1978) who lists 72 species and the other by Guy Norman (Pamphlet of MPSTDC) who records 92 species.

The present paper is a record of birds seen by me over a discontinuous 4 year period. 242 species with status and habitat preference and some notes on their natural history, are included in the main list. Birds recorded by Sinha and Norman, but not by the author are shown in separate lists.

Bandhavgarh National Park

The park is located in the north-eastern segment of Madhya Pradesh, along the northern flanks of the Satpura Range. Co-ordinates are 23° 30' to 23° 46' 45" N, 80° 11' 36" E (H.S. Pabla, pers. Comm.).

Bandhavgarh was originally the private hunting reserve of the erstwhile Maharaja's of Rewa and was constituted a National park in 1968 with an area of 105 sq. km, all of which comprises the present day Tala Range, with its H.Q. at village Tala, 32 km NE of Umaria, which is the H.Q. of the park. Apart from forest department guard-posts, there is no habitation within this range. In 1984 the area of the park was increased to 448 sq.km. With the inclusion of 3 new ranges, namely Kalwa, Magadhi & Khिताuli. These contain 6 villages-3 revenue & 3 forest-that are slated for relocation. The final notification gazetting the extension area as part of the national park is still awaited.

Bandhavgarh is fortunate in that, unlike so many other parks, it forms part of a larger forest block. Apart from the 250 sq.km Panpatha Wildlife Sanctuary that is connected with the park to the north, there are also a number of smaller pockets of protected and reserve forest, amongst which are situated small agricultural communities.

The Study Area: This consisted of Tala Range, Garhpuri & Khिताuli irrigation tanks - both situated in Khिताuli range - and the surrounding areas. Same records were also taken from observations made at Majholi tank, 12 km north of Tala at the edge of the Panpatha Wildlife Sanctuary.

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Topography: The park is hilly with extensive low-lying areas. The hills tend to run in a roughly east-west direction with spurs & ridges radiating to the north and south. The two main features of the park are Bandhavgarh fort - a plateau with steep, forested slopes rising 1200 feet (365 m) from the forest floor and culminating in sheer cliffs. The area of the plateau is 580 acres. It's smaller companion across a steep defile is Bandhaini, rising in terraces to almost the same height as Bandhavgarh. The mean altitude is between 1650 feet (500 m) and 2670 feet (810 m) (H.S. Pabla, pers. comm.). The soil is generally sandy or sandy-loam. The rock is soft feldspathic sandstone with extensive conglomerates (R. Gopal, pers. comm.).

Over 20 spring-fed streams either rise or flow through the park (H.S. Pabla, pers. comm.), of these the largest are the Umrar (western boundary), the Johilla (eastern boundary) and the Janadh. Within Tala range the Charanganga, Damnar, Banbai, Amba Nala and Andhyari Jhiriya are important. All these streams eventually flow into the Son river.

Vegetation and Habitats: Bandhavgarh falls within the Moist, Tropical Deciduous vegetational zone. The forest is dominated by Sal (*Shorea robusta*) and bamboo (*Dendrocalamus strictus*). Bamboo is, perhaps the most abundant species and is virtually ubiquitous. Although sal forms the climax vegetation and is the dominant species of tree, only a relatively small area of the park is under pure sal, i.e. 80% or more of canopy cover.

Within this general pattern of vegetation, a complex mosaic of smaller habitats exists as a function of topography, geology, climate & human activity. For the purpose of this study they have been identified as:

1). **Sal:** Where sal forms 80% or more of the canopy. Relatively small area of the park, most extensively found in the low-lying sections. Generally the quality of sal found in Tala range is of middle to poor quality (H.S. Pabla, pers. comm.). A fair amount of sal appears to be secondary although patches of mature sal exists, draped with massive

Spatholobus roxburghii lianas.

2). **Sal Bamboo:** Often merging with sal. Extensive areas under this type of vegetation are found in the hills, especially on north-facing slopes.

3). **Mixed:** The commonest type. Contains a high, but variable, percentage of sal & bamboo along with species like *Terminalia tomentosa*, *T. bellerica*, *T. chebula*, *Diospyros melanoxylon*, *Madhuca indica*, *Anogeissus latifolia*, *Pterocarpus marsupium*, *Bridelia retusa*, *Careya arborea*, etc.

4). **Dry mixed:** Very little or no sal; high percentage of bamboo, *Boswellia serrata*, *Chloroxylon swietenia*, *Cochlospermum religiosum*, *Lagerstroemia parviflora*, *Buchanania lanzin*, *Sterculia urens*, etc. *Bauhinia vahlii* vines are also common here. This habitat is most commonly found on south-facing slopes and, where the rock comes close to the surface on the flat crests of ridges, the vegetation becomes more open with short grass and clumps of *Woodfordia fruticosa*.

5). **Moist mixed:** Although not a common habitat, it is important for certain species. The common species found here are sal, jamun (*Syzygium cuminii*) and *Terminalia arjuna* with the dense growth of jamun and *T. arjuna* often accompanied by *Ficus elastica* and various species of shrubs. This habitat is found along stream banks sheltered by hills and gorges, most notably along the Charanganga where it passes through a gorge called Jamunia and along the Banbai, Amba Nala, Damnar and Andhyari Jhiriya streams. Also at the northern base of Bandhavgarh fort in the area known as Shesh Shayya.

6). **Grasslands:** Most of the valley floors are covered by meadows which were originally centered around natural swamps but, in their present form, are relics of village fields. Although the grassland communities are complex, two major types of grassland are identifiable - the tall, dense grasslands of the marshy areas and the short and medium grasslands of the drier areas. The commonest grasses found in the park are species of *Saccharum*, *Phragmites*, *Themeda* and *Heteropogon* (R. Gopal 1990). Traditionally, fire, grazing pressure and

frost have been the factors that have helped perpetuate the grasslands and maintain that balance between the tall and the short species. At present, with the removal of fire as a regular occurrence and the reduction in grazing pressure due to the removal of all cattle, there is a noticeable increase in the colonisation of short grass areas by taller species as also the aggrandisement of forests at the expense of grasslands.

7). *Scrub*: Most often encountered in the extension zone, near villages and especially around Garhpuri and Khitauli tanks. In all cases this is the result of over-exploitation. The most common species that form the scrub are clumps of short *Lagerstroemia parviflora*, *Butea monosperma* and *Woodfordia fruticosa* all of which are often draped with *Ziziphus oenoplia*. The edges of the park and extension zone also contain fields and over-grazed meadows.

8). *Tanks and Jheels* : Two large irrigation tanks - Garhpuri and Khitauli - in Khitauli range are included in this study. Other bodies of water are Bhadrashila jheel, Bathan water-hole, the Damnar anicut, which is about 150 m long and 30 m wide and 4 m deep. Surrounded by forest, it is an ideal habitat for storkbilled kingfishers, common kingfishers and the greyheaded fishing eagle.

It must be noted that these habitats are not always well-defined and compartmentalised. A hill-side covered in dry mixed vegetation will often be seamed with lines of sal (often stunted) growing densely along a dry nala or gully. In other areas, mixed, dry mixed, sal etc., will be found in a haphazard patchwork, one grading into the other, depending on the moisture content of the soil. Bandhavgarh has also been inhabited for many centuries and much of the area is under secondary growth and open woodland as a consequence.

Climate : North Indian Monsoonal. Defined by a short, cold, winter from mid-November to end-February with low temperatures of 2°C encountered mainly in January. Hot dry summer from March to mid-June with highs of 44° - 46°C. The hottest month being May. Monsoon from mid-June to end-

September. Average rainfall 117 cm (46 inches) most of which falls during the monsoon with some rain in November, January and February. (Records taken from Tala range).

List: The nomenclature and taxonomic arrangement follows the HANDBOOK OF THE BIRDS OF INDIA & PAKISTAN (Ali and Ripley 1968-74).

Identification is only of species and not sub-species.

The main list includes only those birds that were seen by the author.

Table 1 lists birds recorded by N.K. Sinha (1977-78) and Guy Norman (MPSTDC) but not by me.

Table 2 lists birds that have been treated as unconfirmed with their descriptions.

The period spent by me in Bandhavgarh were: November 1986 - April 1987; October 1987 - April 1988; October 1988 - May 1989; August, September and November 1989; April 1990 - September 1990.

Key :	Habitats	Abundance
S	- Sal	1 - Abundant
S/B	- Sal with Bamboo	2 - Common
Mx	- Mixed	3 - Regular
DM	- Dry mixed	4 - Uncommon
MM	- Moist mixed	5 - Rare
G	- Grassland	
Sc	- Scrub	
T	- Tank	

Status

W	- Winter visitor
PM	- Passage Migrant
LM	- Local Migrant
R	- Resident
Sv	- Summer visitor
Br	- Breeding
V	- Vagrant

SYSTEMATIC LIST

Common Name	Zoological Name	Habitat	Status	Abundance
PODICIPEDIDAE				
Little Grebe	<i>Podiceps ruficollis</i>	T; Lily ponds.	R/LM (Movements subject to availability of water). Br. Juveniles seen in park on 20.9.88.	3
PHALACROCORACIDAE				
Large Cormorant	<i>Phalacrocorax carbo</i>	T; Seen in Garhpuri tank in December & January.	W	4
Darter	<i>Anhinga rufa</i>	T; seen in Garhpuri, Bathan & Bhadrashila.	LM; most commonly seen from October to mid-February.	3
ARDEIDAE				
Grey Heron	<i>Ardea cinerea</i>	T; also mud-flats & shallows.	LM; generally seen from October to March Reported Br. from nearby heronries.	4
Purple Heron	<i>Ardea purpurea</i>	T; reported from Khitauli tank on 18.12.88, sightings at Bhadrashila as well.	LM	4
Pond Heron	<i>Ardeola grayii</i>	T; marsh, streams, fields.	R; all birds in Br. plumage by May; juveniles seen on 26.9.89 at Garhpuri.	2
Cattle Egret	<i>Bubulcus ibis</i>	With cattle in fields, streams, grazed meadows, open DM & Sc.	LM; all birds seen in Br. plumage by May; Br. location unknown, seen from Oct. to early May.	3
Large Egret	<i>Ardea alba</i>	T; observed only at Khitauli and Bhadrashila.	LM; seen between December and June, Br. location unknown.	4
Median Egret	<i>Egretta intermedia</i>	T; streams.	LM; seen from October to mid-May. in Br. plumage on 3.5.89; Br. location unknown.	3
Little Egret	<i>Egretta garzetta</i>	T; streams.	LM; seen from December to mid-May; in Br. plumage at Bhadrashila on 3.5.89 and 11.5.89; Br. location unknown.	3
Black Bittern	<i>Ixobrychus flavicollis</i>	1 record from reed banks at Bhadrashila on 17.3.87.	LM?	5

Common Name	Zoological Name	Habitat	Status	Abundance
Chestnut Bittern	<i>Ixobrychus cinnamomeus</i>	Amongst reeds along stream banks.	S? seen in July 1991.	5
CICONIIDAE				
Openbill Stork	<i>Anastomus oscitans</i>	T	LM? seen at Khitauli from December to early May; one record from Bhadrashila; Juveniles at Khitauli 18.12.88.	4
Whitenecked Stork	<i>Ciconia episcopus</i>	T; marsh, flooded fields, streams.	R; Br. in and around the park large trees; nests through the monsoon.	3
Black Stork	<i>Ciconia nigra</i>	1 bird seen st Gopalpur tank.	Seen from 28.12.87 - 15.1.88, V?	5
Lesser Adjutant Stork	<i>Leptoptilos javanicus</i>	Marsh, fields, streams, open Mx.	R; no nests seen but juveniles seen at Bhadrashila on 16.2.87 & 27.2.87; generally solitary or in pairs but 4 adults seen together in Marsh on 13.5.90; 1 bird seen in moult 5.9.89 & 14.9.89; most commonly seen in S.	2
THRESKIORNITHIDAE				
White Ibis	<i>Threskiornis aethiopica</i>	T; seen twice at Khitauli 18.1.87 & 24.12.87.	W	5
Black Ibis	<i>Pseudibis papillosa</i>	T; streams, fields, G.	R, LM; mainly seen inside the park from September- mid-May; 15 birds seen together at jheel on 28.4.90; Br. sites in villages around the park.	3
ANATIDAE				
Barheaded Goose	<i>Anser indicus</i>	T; Khitauli.	W; seen on 18.1.87.	5
Lesser Whistling Teal	<i>Dendrocygna javanica</i>	T; small ponds.	R/LM; movements subject to availability of water; seen at Bathan, Garhpuri, Bhadrashila during the monsoon, Br, 1 pr. seen with young at Bathan on 30.8.89.	2/3
Ruddy Shelduck	<i>Tadorna ferruginea</i>	T; at Khitauli.	W; seen once on 18.1.87; common on the Son river 30 km away 3 birds on Son 27.4.90.	5
Pintail	<i>Anas acuta</i>	T	W; seen at Majhauili 20.1.87.	5
Common teal	<i>Anas crecca</i>	T, Shallow Wetlands.	W	2
Common Pochard	<i>Aythya ferina</i>	T	W?V? seen once at Bathan 19.2.89.	5

Common Name	Zoological Name	Habitat	Status	Abundance
Cotton Teal	<i>Nettapus coromandelianus</i>	T	LM; recorded December & January.	4
Combduck	<i>Sarkidiornis melanotos</i>	T; wetlands.	R/LM; seen at Bathan through August & September & December; through the monsoon depending upon the presence of suitable water bodies.	4
ACCIPITRIDAE				
Blackwinged Kite	<i>Elanus caeruleus</i>	G; forest edge.	LM? earliest seen mid-January, latest end-May; movements uncertain, 1 sub-adult in mottled plumage in G on 5.2.89.	3
Honey buzzard	<i>Pernis ptilorhynchus</i>	S, S/B, Mx & open Mx around villages.	R, S; population in the park seems to be augmented from March till September; no nests or young seen but birds with twigs and other nesting material observed on 1.5.90 & 14.5.90; 1 bird also seen breaking off twigs and leaves from jamun flying a short distance and then dropping them, pairs observed after March; both light and dark phase birds seen.	3
Black kite	<i>Milvus migrans</i>	Villages and fields only occasionally seen at the edge of the forest.	R	3
Shikra	<i>Accipiter badius</i>	S, S/B, Mx, DM, MM, Sc; sometimes seen soaring in tight circles over G.	R; numbers increase between March & October, Br; nests seen with 2 chicks on 10.6.90; on 20.6.90 1 chick seen almost fully fledged by this time, both parents seen close to the nest, juveniles seen between 30.8.89 & 16.11.89, 1 juvenile seen attacking jungle babblers on ground, 1 adult male seen attacking a female koel in dense Mx, some birds seen hawking for termites on 21.6.90.	3
Sparrowhawk	<i>Accipiter nisus</i>	Mx	3 sightings 17.11.87, 16.1.88 & 3.2.89; W.	5
Goshawk	<i>Accipiter gentilis</i>	Mx, DM, Sc, fields.	W?PM? Seen from mid-Jan. to mid-April.	4
White-eyed Hawk	<i>Butastur teesa</i>	Fields, Sc, S/B, Mx.	From February onwards there is an increase in the number of birds seen in forest as opposed to open areas; presumably this is done for nesting; most birds seem to shift back into open country by mid-July; R.	3
Crested Hawk Eagle	<i>Spizaetus cirrhatus</i>	Mx, edge of G, MM, S.	R; juveniles regularly seen, observed feeding on Black-naped hare (<i>Lepus nigricollis</i>) on two occasions.	3

Common Name	Zoological Name	Habitat	Status	Abundance
Bonnelli's Eagle	<i>Hieraetus fasciatus</i>	Mx, DM; soaring over G.	R; no nests or young seen, on 3.9.89 1 bird seen being attacked by a pair of Shahin Falcons.	4
Steppe Eagle	<i>Aquila rapax</i>	G	PM; all records from February & early March.	4
Lesser Spotted Eagle	<i>Aquila pomarina</i>	Near water.	2 records - 26.11.89 & 16.5.90.	5
Greyheaded Fishing Eagle	<i>Ichthyophaga ichhyaetus</i>	T; Wooded banks of streams; seen regularly at the Damnar anicut in May & June 1990.	V; movements uncertain -probably dependant upon water supply.	4
Black or King Vulture	<i>Sarcogyps calvus</i>	Sc, fields, Mx,G.	R; no young or nests seen.	3
Indian Longbilled Vulture	<i>Gyps indicus</i>	All habitats, nesting & roosting on ledges of cliffs.	R, nests & young seen.	2
Whitebacked Vulture	<i>Gyps bengalensis</i>	All habitats, nesting and roosting on cliffs and tall trees.	R	2
Egyptian or Scavenger Vulture	<i>Neophron percnopterus</i>	All habitats.	R; On one occasion 12 birds counted on a tree above a tiger kill; often seen rummaging through tiger droppings.	2
Hen Harrier	<i>Circus cyaneus</i>	G, fields.	PM? V? 2 records-22.11.87 & 23.11.87 of 1 male.	5
Pied Harrier	<i>Circus melanoleucos</i>	Fields.	1 record from March 1986; V.	5
Marsh Harrier	<i>Circus aeruginosus</i>	G; Fields, soaring over Mx.	W/Pm; records from September and October as well as from January.	4
Short-toed Eagle	<i>Circaetus gallicus</i>	Open forest, G.	1 record from 13.2.89.	5
Crested Serpent Eagle	<i>Spilornis cheela</i>	S, S/B, Mx, DM, MM; along the edge of streams & pools.	R; Birds seen mating 17.3.89, immatures seen on 9.9.89 & 12.9.89 moult observed 30.4.90 & 12.5.90.	2
Osprey	<i>Pandion haliaetus</i>	T	W; arriving by late August.	4
FALCONIDAE				
Peregrine Falcon	<i>Falco peregrinus</i>	Mx; 1 pair regularly seen on cliffs of the fort.	R; this is the sub-species <i>peregrinator</i> .	4

Common Name	Zoological Name	Habitat	Status	Abundance
Eurasian Hobby	<i>Falco subbuteo</i>	Mx; along the cliffs of the fort hunting for Crag martins.	W; sparse sightings from November to February.	4
Eurasian kestrel	<i>Falco tinnunculus</i>	Open Mx, Dm, G.	W; mid-November to early May.	3
PHASIANIDAE				
Painted Partridge	<i>Francolinus pictus</i>	G; edge of G and open forest, in monsoon seen and heard from Sc.	R; first calls heard from mid April to early October.	3
Grey partridge	<i>Francolinus pondicerianus</i>	Sc, DM	R; Br.	3
Jungle Bush Quail	<i>Pedicularia asiatica</i>	G; open forest with G understorey, coveys of 12-16 birds seen regularly.	R; chicks seen in November & December.	2
Painted Spurfowl	<i>Galloperdix lunulata</i>	DM, Mx; in hilly terrain.	R	3
Red Jungle fowl	<i>Gallus gallus</i>	S, S/B, Mx	R	2
Common Peafowl	<i>Pavo cristatus</i>	S, S/B, Mx, G	R	2
TURNICIDAE				
Common Bustard-quail	<i>Turnix suscitator</i>	Open Mx, G, forests with G understorey or low bush.	R	3
GRUIDAE				
Sarus Crane	<i>Grus antigone</i>	G; marshy fields.	R, Br; 1 chick seen in July 1989 in G.	4
RALLIDAE				
Whitebreasted waterhen	<i>Amaurornis phoenicurus</i>	T; reeds along streams.	LM/R; seen through the year but more during the monsoon; courting calls heard from March; Br. juveniles seen amongst reeds 31.8.89.	4
Moorhen	<i>Gallinula chloropus</i>	T	W	4/5
Coot	<i>Fulica atra</i>	Pond.	W? Seen on 8.3.92 at Gopalpur waterhole.	5
JACANIDAE				
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	T; ponds.	LM	5 (Reported by Robert Fleming Jr. in Jan. 1992).

Common Name	Zoological Name	Habitat	Status	Abundance
Bronzewinged Jacana	<i>Metopidius indicus</i>	T	R; but subject to local movements; Br; Juveniles seen in November.	3
ROSTRATULIDAE				
Painted Snipe	<i>Rostratula benghalensis</i>	T; ponds.	LM; 2 records 18.3.87 & 20.6.90.	5
RECURVIROSTRIDAE				
Blackwinged stilt	<i>Himantopus himantopus</i>	T; mud-flats.	W/PM	3/4
BURHINIDAE				
Stone curlew	<i>Burhinus oedicephalus</i>	Sc, fields; from end February to end June seen in open Mx & DM; when fire-lines are cleared along the edges of roads these birds are to be found nesting in the cleared area; 1 nest seen on 16.3.87 and chicks seen in another nest on 26.4.90; fire protection can thus be seen to be to the advantage of these birds.	R/LM; not seen often between July & December.	3
Great Stone Plover	<i>Esacus magnirostris</i>	Streams, T.	1 record from Khitauli on 18.12.88.	5
CHARADRIIDAE				
Redwattled Lapwing	<i>Vanellus indicus</i>	T; streams, marshes, fields.	R; Br; a number of chicks seen in May.	2
Spurwinged Lapwing	<i>Vanellus spinosus</i>	T; sandy banks of streams; seen only on the banks of the Umrar river and Khitauli tank.	R	4
Yellow-wattled lapwing	<i>Vanellus malabaricus</i>	Sc; fields, open DM.	R; 1 pair with chicks (3) seen on 14.4.90; by 21.4.90 only 1 chick left.	3
Little Ringed Plover	<i>Charadrius dubius</i>	T; mud-flats.	W	3
Lesser Sand Plover	<i>Charadrius mongolus</i>	T; mud-flats.	W; 2 records - 10.11.88 & 18.12.88, on both occasions seen in large numbers.	4
Greenshank	<i>Tringa nebularia</i>	T; streams.	W; From early September to March.	3
Spotted Redshank	<i>Tringa erythropus</i>	T	1 record from Majhauri tank, on 20.1.87, W.	5

Common Name	Zoological Name	Habitat	Status	Abundance
Green Sandpiper	<i>Tringa ochropus</i>	T; marsh, streams, mud-wallows, etc.	W/PM; earliest seen early-September, latest mid-April.	3
Wood Sandpiper	<i>Tringa glareola</i>	T; marsh.	W/PM; seen from December to March; 12 + birds seen in shallow water at Bathan in March.	3/4
Common Sandpiper	<i>Tringa hypoleucos</i>	T; mud-flats.	W	4
Fantail Snipe	<i>Gallinago gallinago</i>	Mud-flats, marsh, shallow pools.	W	4
Temminck's Stint	<i>Calidris temminckii</i>	T; mud-flats,	W; 3 records - 18.1.87, 10.11.88, & 18.12.88 - all from Khitauli.	4
Little Stint	<i>Calidris minuta</i>	T; mud-flats.	W; 1 record from Khitauli on 10.11.88.	5
LARIDAE				
Indian River Tern	<i>Sterna aurantia</i>	T; rivers.	V? 1 record from Khitauli on 18.11.88.	5
Blackbellied Tern	<i>Sterna acuticauda</i>	T	1 record from Majhauri on 20.1.87; V.	5
PTEROCLIDAE				
Painted Sandgrouse	<i>Pterocles indicus</i>	DM, Mx.	LM? Br. 1 chick seen with parents on 25.12.88; Birds seen in park from November to May.	3
COLUMBIDAE				
Yellowlegged Green Pigeon	<i>Treron phoenicoptera</i>	All habitats wherever fruiting trees are found; generally flocks of 4+ birds seen; 60 counted on one fruiting pipal.	R	2
Blue Rock Pigeon	<i>Columba livia</i>	Ubiquitous; commonly seen around cliffs, tanks and buildings.	R	2
Rufous Turtle Dove	<i>Streptopelia orientalis</i>	Mx, S, S/B, G, fields, occasionally in open DM; in August & September seen more in open and where bamboo predominates.	R & PM; numbers increase markedly from mid-February to mid-April.	1/2
Indian Ring Dove	<i>Streptopelia decaocto</i>	Sc, fields, S/B, Mx; last 2 habitats used mainly between April and September.	R	2

Common Name	Zoological Name	Habitat	Status	Abundance
Red Turtle Dove	<i>Streptopelia tranquebarica</i>	Sc, fields, G in Sept. more often seen at the edge of the park, moving closer and into the park from April to September.	R	3/4
Spotted Dove	<i>Streptopelia chinensis</i>	Mx, S/B, G, Sc, open DM.	R	1
Little Brown Dove	<i>Streptopelia senegalensis</i>	Sc, fields, DM; prefers the open country around the park until April when it moves into DM areas in small numbers.	R	2/3
Emerald Dove	<i>Chalcophaps indica</i>	MM,S.	R; more commonly seen from April to October-perhaps numbers are augmented? calls heard from mid-March.	4
PSITTACIDAE				
Large Parakeet	<i>Psittacula eupatria</i>	S,Mx, open Mx; seems to prefer relatively denser habitat than the other 2 parakeets in the park; is commonly seen on fruiting 'ber' (<i>Zizyphus jujuba</i>).	R	3
Roseringed Parakeet	<i>Psittacula krameri</i>	Mx, DM, Sc; seen feeding on seed of <i>Xanthium</i> , fruit of 'ber' and <i>Bridelia retusa</i> .	R	2
Blossomheaded Parakeet	<i>Psittacula cyanocephala</i>	Mx, open Mx; has a great partiality to the seed of the bamboo: seems to prefer more open country than <i>P. krameri</i> .	R; begins nesting at the end of February; fully fledged juveniles seen in company of adults by mid-May; their numbers drop sharply between mid-July and mid-September.	1/2
CUCULIDAE				
Pied Crested Cuckoo	<i>Clamator jacobinus</i>	Mx, open Mx, DM.	Sv & possibly PM.	4
Common Hawk Cuckoo	<i>Cuculus varius</i>	Mx, S, S/B, occasionally DM.	R & Sv; numbers increase sharply from mid-March to October; earliest call heard in mid-March.	3
Indian Cuckoo	<i>Cuculus micropterus</i>	S, S/B, Mx.	Sv; earliest seen/heard end-April; latest on end-September; Br? no young seen.	3
The Cuckoo	<i>Cuculus canorus</i>	Mx,S, S/B.	Sv; earliest seen/heard 13.5.90; Br? no young seen.	3
Plaintive Cuckoo	<i>Cacomantis passerinus</i>	Mx, S, S/B.	Sv; earliest seen/heard mid-May, latest mid-September; Br? no young seen.	3/4

Common Name	Zoological Name	Habitat	Status	Abundance
Drongo-cuckoo	<i>Surniculus lugubris</i>	Mx, S/B open Mx.	Sv; earliest seen/heard end-May, latest end September; Br? no young seen.	4
Koel	<i>Eudynamys scolopacea</i>	Mx, MM, village groves.	Sv/LM; earliest seen mid/end-April, latest mid-November; Br?	3
Sirkeer Cuckoo	<i>Taccocua leschenaultii</i>	DM, S/B, open Mx.	R	4
Crow-pheasant	<i>Centropus sinensis</i>	Mx, DM, in bamboo and undergrowth.	R; Br-juvenile seen with adult on 14.9.89.	3
STRIGIDAE				
Collared Scops Owl	<i>Otus bakkamoena</i>	Open Mx, DM.	R; earliest heard mid-March, latest mid-September.	3/4
Brown Fish Owl	<i>Bubo zeylonensis</i>	MM, along streams, 2 pairs identified - 1 along the Damnar anicut and the other at Jamunia.	R; Br; juveniles seen on 18.4.90.	4
Jungle Owlet	<i>Glaucidium radiatum</i>	Mx, S, S/B, DM, MM; lightly wooded to dense forests.	R; Br; nesthole seen in sal with 3 chicks seen on 25.4.90.	2
Brown Hawk-Owl	<i>Ninox scutulata</i>	1 record from 5.1.87 when a bird was heard calling just after dusk.	V	5
Spotted Owlet	<i>Athene brama</i>	Sc; fields, near villages.	R	3
Mottled Wood Owl	<i>Strix ocellata</i>	Mx, DM; well wooded country; often seen and heard near the gate of the park.	R; Br.	3/4
CAPRIMULGIDAE				
Jungle Nightjar	<i>Caprimulgus indicus</i>	S, S/B, Mx, G.	R; earliest heard 19.2.89, calls heard until end-June.	2
Common Indian Nightjar	<i>Caprimulgus asiaticus</i>	Sc, fields, open Mx; commonly seen on roads at night.	R; heard from mid-March to end-May.	3
Franklin's Nightjar	<i>Caprimulgus affinis</i>	Fields, open DM, G.	R; call heard from end February to end June; also calls in the middle of the day if one happens to pass close by.	2
APODIDAE				
Whiterumped Spinetail	<i>Chaetura sylvatica</i>	G, Mx.	LM; sporadic visitor, seen most often in May.	4/5

Common Name	Zoological Name	Habitat	Status	Abundance
House Swift	<i>Apus affinis</i>	Mx, G, T.	R	3
Crested Tree Swift	<i>Hemiprocne longipennis</i>	Mx,G, open Mx; once seen hawking over fire along with drongos, large groups often seen over G and water in the momings and evenings.	R	2
ALCEDINIDAE				
Lesser Pied Kingfisher	<i>Ceryle rudis</i>	T	R	3
Common Kingfisher	<i>Alcedo atthis</i>	T, streams, marsh.	R	3
Storkbilled Kingfisher	<i>Pelargopsis capensis</i>	Streams, Jheels with well-wooded banks; commonly seen at Jamunia.	R; Br. nest seen at Damnar anicut.	4
Whitebreasted Kingfisher	<i>Halcyon smyrnensis</i>	T, marsh, streams and from February onwards, increasingly in drier areas - S, S/B, Mx.	R; nestholes seen in banks of dry nals and similar places.	2
MEROPIDAE				
Green Bee-eater	<i>Merops orientalis</i>	G, open Mx, DM, Sc.	R; not seen in G from July to end September; during the monsoon in some places but not as widely dispersed as during the rest of the year.	2
Bluebearded Bee-eater	<i>Nyctyornis athertoni</i>	Mx,S,S/B; from November to May 6-8 birds seen regularly in the compound of the Bandhavgarh Jungle Camp; in March 1990, 2 large bee-hives were completely demolished by 6 birds. They would stay the whole day near the hives snapping up bees as they arrived at the hive and feeding on the larvae.	R; 1 pair seen mating on 16.4.90.	3

Common Name	Zoological Name	Habitat	Status	Abundance
CORACIIDAE				
Indian Roller	<i>Coracias benghalensis</i>	G, Sc, Open Mx, DM, open S/B; prefers open areas from March onwards is seen more frequently in relatively thickly wooded country.	R; seen mating on 12.2.89 & 16.3.89; nestholes seen in sal 3 m above ground level and in jamun 7.5 m high; birds seen in nests through April & May.	2
UPUPIDAE				
Hoopoe	<i>Upupa epops</i>	In open forests with little or no undergrowth; Sc, fields.	R; nesthole seen in <i>B. retusa</i> 4.5 m high in April.	2/3
BUCEROTIDAE				
Common Grey Hombill	<i>Tockus birostris</i>	Mx, open Mx; partial to banyan and pipal fruit.	R; in April lone birds were seen flying with fruit in their bills to an unlocated spot.	2
Malabar Pied Hombill	<i>Anthracoceros coronatus</i>	Mx, S, amongst ficus and mango trees on the fort; mainly seen on the fort and in the rest of the park quite frequently from March to June; for the first 2 weeks of May'90 a group of 13 birds were seen regularly in S & Mx around Bathan; some subadults were also present.	R	3/4
CAPTIONIDAE				
Large Green Barbet	<i>Megalaima zeylanica</i>	Mx, open Mx; partial to fruit of pipal, banyan, <i>B. retusa</i> , <i>F. glomerata</i> , etc.	R	2
Crimsonbreasted Barbet	<i>Megalaima haemacephala</i>	Mx, DM, Open Mx; feeds on all kinds of fruit; on fruiting pipal and banyan it is common to see upwards of 2 dozen birds; on 5.9.89 25+ birds gathered on an <i>Albizia lebbek</i> and then flew into an unidentified bush with green berries, also take insects - on 1.6.90 one bird was observed darting up to take insects that looked like termites.	R; observed mating on 18.3.90 and 15.4.90; on the first occasion male remained mounted for 4 mins. He had something in his mouth which he offered the female after he got off; on the second occasion one bird-presumably the male-offered some fruit to the female which was accepted; both birds then flew separately into another tree, mating occurred 10 mins. later and lasted less than a minute.	2

Common Name	Zoological Name	Habitat	Status	Abundance
PICIDAE				
Wryneck	<i>Jynx torquilla</i>	Sc, DM.	W? 2 records from March 1985 & December 1986.	5
Rufous Woodpecker	<i>Micropternus brachyurus</i>	S, Mx with high percentage of sal	Sv; Br. Juveniles seen on 17.9.89, earliest seen in park end-April, latest end-September.	4
Little scaly-bellied Green Woodpecker	<i>Picus myrmecophoneus</i>	S, S/B, Mx, Open Mx; almost always seen feeding low or at mid-level.	R	4
Lesser Goldenbacked Woodpecker	<i>Dinopium benghalense</i>	Mx,DM, open Mx, S, MM; R often in association of with Jungle Babblers.		2
Yellowfronted Pied Woodpecker	<i>Picoides mahrattensis</i>	Mx, S, open Mx; seen feeding on flowers of <i>Butea monosperma</i> .	R	2/3
Brown Crowned Pigmy Woodpecker	<i>Picoides nanus</i>	Mx,open Mx, DM, MM,S; R in winter often seen in association with Common Iora.		2
Blackbacked Woodpecker	<i>Chrysocolaptes festivus</i>	Mx, open Mx, DM, S.	R; juveniles seen on 4.2.89.	3
PITIIDAE				
Indian Pitta	<i>Pitta brachyura</i>	Mx, S/B; prefers somewhat open forest.	Sv & PM; earliest seen 7.5.90, numbers build up very rapidly after that and the birds are found all over the park in suitable habitat; very vocal and when their numbers peak the forest is filled with their calls; numbers seem to vary from year to year; earliest seen early-June, latest mid/end-January.	2
ALAUDIDAE				
Bush lark	<i>Mirafra assamica</i>	Fields, Sc.	R	3
Ashycrowned Finch-lark	<i>Eremopterix grisea</i>	Sc, fields.	R; 1 male seen displaying on 8.9.89.	3
Rufous tailed Finch-lark	<i>Ammomanes phoenicurus</i>	Fields, Sc.	V	5

Common Name	Zoological Name	Habitat	Status	Abundance
HIRUNDINIDAE				
Plain Sand Martin	<i>Riparia paludicola</i>	T, streams.	2 records - 16.1.87 & 18.1.87.	5
Crag Martin	<i>Hirundo rupestris</i>	G, cliffs.	LM; seen sporadically in the park from November to May.	4
Dusky Crag Martin	<i>Hirundo concolor</i>	G, cliffs, DM; seen hawking over G after rains in company of other swifts and swallows.	R	3
Swallow	<i>Hirundo rustica</i>	T; mainly seen at Khitauli and Garhpuri.	W	4
Wire-tailed Swallow	<i>Hirundo smithii</i>	T; in monsoon over flooded marshes.	R	3
Red-rumped or Striated Swallow	<i>Hirundo daurica</i>	G, Mx.	R; most abundant during the monsoon; 2- during monsoon, at other times appears after rain. 3/4 - at other times.	
LANIIDAE				
Baybacked Shrike	<i>Lanius vittatus</i>	From August to April in degraded Mx, Sc, fields; from April to August in Mx, S, G.	R; On 11.5.90 1 bird seen lining a cup shaped hollow in a horizontal sal branch with dry bamboo leaves and grass.	3
Rufousbacked Shrike	<i>Lanius schach</i>	November to April in G, fields & open Mx; April to end September they tend to stay in more wooded country.	R; 1 juvenile seen in open Mx on 13.9.89.	3
Blackheaded Shrike	<i>L. schach tricolor</i>	Seen in village meadow along the edge of the park.	December 1991.	5
Brown Shrike	<i>Lanius cristatus</i>	G, open Mx.	W; earliest seen mid-September, latest mid-April.	2
ORIOLIDAE				
Golden Oriole	<i>Oriolus oriolus</i>	Mx, MM.	Sv, Br; seen in park between early April & October, juveniles seen in September.	2/3
Blackheaded Oriole	<i>Oriolus xanthornus</i>	Mx, S.	R; 1 juvenile seen on 11.9.89.	2/3
DICRURIDAE				
Black Drongo	<i>Dicrurus adsimilis</i>	Sc, fields, G, open Mx from April to end September is also found in and S/B.	R; young commonly seen in September.	2

Common Name	Zoological Name	Habitat	Status	Abundance
Ashy Drongo	<i>Dicrurus leucophaeus</i>	Mx, S; generally prefers more wooded habitat than Black drongo, although there is considerable over-lap between April & September.	R, Sv; numbers greatly increase between April & October, Br.	2 - during monsoon; 4-at other times.
Whitebellied Drongo	<i>Dicrurus caerulescens</i>	Mx, DM, open Mx, S.	R	3
Haircrested Drongo	<i>Dicrurus hottentottus</i>	S, Mx.	LM? V? Seen on 16.12.88, 25.4.90 & 3.5.90	5
Greater Raquet-tailed Drongo	<i>Dicrurus paradiseus</i>	Mx, MM, S; in nesting season almost exclusively in S,S/B,MM.	R	3
STURNIDAE				
Greyheaded Myna	<i>Sturnus malabaricus</i>	Open S,G,open Mx; enters park with the blossoming of the silkcotton.	R; subject to local movements, earliest sighted inside park 10.3.87, Br.	3
Brahminy Myna	<i>Sturnus pagodarum</i>	Sc, fields, open Mx; from April large numbers move into open S, S/B, presumably to nest.	R	2
Rosy Pastor	<i>Sturnus roseus</i>	Mx	V; 1 record of immature bird 10.4.90.	4
Pied Myna	<i>Sturnus contra</i>	Fields along streams.	R	3
Common Myna	<i>Acridotheres tristis</i>	G, Sc, S, Mx, open Mx fields; often seen on fruiting & flowering trees.	R	1
CORVIDAE				
Indian Tree Pie	<i>Dendrocitta vagabunda</i>	In all habitats; seems to show a preference for S, Mx.	R; immature seen on 2.6.90.	2
House Crow	<i>Corvus splendens</i>	Tala village.	R	2
Jungle Crow	<i>Corvus macrorhynchos</i>	In all habitats; often first birds to appear at a tiger kill.	R; moult observed in early May.	1
CAMPEPHAGIDAE				
Common Wood shrike	<i>Tephrodornis pondicerianus</i>	DM, Mx, S, S/B.	R; immature being seen fed on 1.6.90; from September to April often seen in mixed feeding flocks, associating most regularly with common Iora.	2

Common Name	Zoological Name	Habitat	Status	Abundance
Large Cuckoo-Shrike	<i>Coracina novaehollandiae</i>	Mx, open S, Sc, fields; often seen at the edge of forests and open areas.	R; immature seen in mid-September.	2
Smaller Grey Cuckoo-Shrike	<i>Coracina melaschistos</i>	Mx	W?V? 2 records - 14.12.86 1 bird in company of Quaker babbler, 19.3.90 - 2 birds actively hunting through mid and top level of canopy.	5
Blackheaded Cuckoo-Shrike	<i>Coracina melanoptera</i>	Mx, DM.	Sv? LM? in very small numbers, only 1 record from park - 18.5.90.	5
Longtailed Minivet	<i>Pericrocotus ethologus</i>	S, Mx, DM, MM.	W; seen from mid-November to end March.	3
Small Minivet	<i>Pericrocotus cinnamomeus</i>	Mx, open Mx, DM, S.	R; immatures seen from May to September; from September to March often seen in mixed feeding flocks; between April & August pairs or bird groups are often seen.	2
Whitebellied Minivet	<i>Pericrocotus erythropygius</i>	Sc	2 records - 2 birds on 7.11.86 and 2 birds on 13.12.86.	5
IRENIDAE				
Common Iora	<i>Aegithina tiphia</i>	Mx, open Mx, DM, Sc; often seen in flowering <i>Viscum</i> .	R	2
Golden-fronted Chloropsis	<i>Chloropsis aurifrons</i>	S, Mx, open Mx; often seen together with <i>C. cochinchinensis</i> on flowering <i>Viscum</i> , <i>B. monosperma</i> & Silk cotton.	R; immatures seen in September.	3/4
Goldmantled Chloropsis	<i>Chloropsis cochinchinensis</i>	S, Mx, open Mx; as with the above species, also often seen in tangled <i>Zizyphus oenoplia</i> creepers; although there is considerable habitat overlap with <i>C. aurifrons</i> , this bird is more often seen in more open, lightly wooded country.	R; immatures seen in September.	3
PYCNONOTIDAE				
Redvented Balbul	<i>Pycnonotus cafer</i>	G, open Mx, Sc, open S/B, DM; found in large numbers in fruiting <i>B. retusa</i> and <i>Z. oenoplia</i> and occasionally pipal.	R	2

Common Name	Zoological Name	Habitat	Status	Abundance
MUSCICAPIDAE				
Spotted Babbler	<i>Pellorneum ruficeps</i>	Mx, S/B; shows a marked preference for bamboo.	R; the low, musical 'beat-you' call heard from mid-April to end September.	4 Perhaps more abundant than indicated here but difficult to see.
Slatyheaded Scimitar Babbler	<i>Pomatorhinus schisticeps</i>	Mx, S/B; another habitue of bamboo.	R	3/4
Rufousbellied Babbler	<i>Dumetia hyperythra</i>	Mx,G; in bushes, shrubs and clumps of fallen bamboo; in Mx seen with Tailor Bird and Tickell's Blue Flycatcher.	R	3
Yelloweyed Babbler	<i>Chrysomma sinense</i>	G, grass understorey and shrubby growth, bamboo.	R	3
Large Grey Babbler	<i>Turdoides malcolmi</i>	Sc	R	4
Jungle Babbler	<i>Turdoides striatus</i>	In all habitats; Golden Backed Woodpeckers, Large Raquet-tailed Drongos and Tree pies commonly associated with flocks of this species.	R	1
Quaker Babbler	<i>Alcippe poioicephala</i>	Mx, MM, S/B; Preference for bamboo.	R; juveniles seen 5.9.89.	4
Brown Flycatcher	<i>Muscicapa latirostris</i>	Mx, DM, edge of forest and open areas, G.	PM; sightings between 11.9.89 & 21.9.89 & 26.4.90 - 3.5.90.	3/4
Redbreasted Flycatcher	<i>Muscicapa parva</i>	Sc, open Mx, Mx, edge of MM, open S/B.	W; earliest seen on end-September, latest on mid-April; males seen in Br. plumage on 5.11.89 & 9.4.90.	Numbers peak between mid-November & mid-March; 2
Whitebrowed Blue Flycatcher	<i>Muscicapa supercilialis</i>	Mx, MM.	W; earliest seen early-November, latest mid-March.	4
Tickell's Blue Flycatcher	<i>Muscicapa tickelliae</i>	Dm,Mx,S/B,occasionally in MM; marked preference for bamboo thickets and other low vegetation from which it makes forays from low perches.	R	2

Common Name	Zoological Name	Habitat	Status	Abundance
Verditer Flycatcher	<i>Muscicapa thalassina</i>	Mx, open Mx, MM, S.	W	4
Greyheaded Flycatcher	<i>Culicicapa ceylonensis</i>	MM, Mx.	W; earliest seen mid/end November, latest mid-March.	3
Whitebrowed Fantail Flycatcher	<i>Rhipidura aureola</i>	Mx, open Mx, Sc, DM, S.	R; immature seen on 28.8.89.	2/3
Paradise Flycatcher	<i>Terpsiphone paradisi</i>	Mx, open Mx, S, MM.	SV; Br. earliest seen mid-March, latest end-September.	3
Blacknaped Flycatcher	<i>Hypothymis azurea</i>	S, Mx, MM, open Mx, dense bamboo thickets.	R; 1 pair seen nesting in Sal on 20.4.89.	3
Streaked Fantail Warbler	<i>Cisticola juncidis</i>	G	R	2
Franklin's Wren Warbler	<i>Prinia hodgsonii</i>	G, Sc, grass understorey, bamboo.	R; in breeding season leaves G for forest; Br. plumage seen earliest on 8.2.89; immatures seen in September.	2
Jungle Wren Warbler	<i>Prinia sylvatica</i>	G, grass understorey and undergrowth in forest, bamboo.	R; 1 bird seen displaying on 1.9.89 repeatedly shooting up and then diving vertically, wobbling slightly, to perch, calling all the time; immatures seen through September.	2/3
Tailor Bird	<i>Orthotomus sutorius</i>	Mx, with a preference for bamboo and tangled undergrowth, Sc; also seen feeding on <i>Madhuca indica</i> flowers and fruiting banyan.	R	2
Indian great Reed Warbler	<i>Acrocephalus stentoreus</i>	Dense, rank reeds and marshy grassland.	PM? 3 records - 21.11.86, 16.11.87, 19.11.87.	5
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	G, Sc, open Mx, in undergrowth.	PM/W; earliest seen end-September latest early-May; numbers highest between late September and early November and from mid-April to early May.	3/4
Lesser Whitethroat	<i>Sylvia curruca</i>	Sc, DM, an Undergrowth.	PM	4
Brown Leaf Warbler	<i>Phylloscopus collybita</i>	G, open Mx, DM.	W; seen from December to March.	3/4
Tickell's Leaf Warbler	<i>Phylloscopus affinis</i>	Mx	PM/W seen from December to March.	4

Common Name	Zoological Name	Habitat	Status	Abundance
Olivaceous Leaf Warbler	<i>Phylloscopus griseolus</i>	DM, open Mx, Mx.	W; earliest seen end-October, latest end-March.	3
Dusky Leaf Warbler	<i>Phylloscopus fuscatus</i>	Sc, open DM, often seen feeding on ground.	W	3/4
Yellowbrowed Leaf Warbler	<i>Phylloscopus inornatus</i>	Mx, open Mx, MM,S, DM.	W; earliest seen end-September, latest mid-March.	2
Dull Green Leaf Warbler	<i>Phylloscopus trochiloides</i>	Mx, S, open Mx, DM, MM, S/B.	W/PM; earliest seen early-September, latest mid-April; in first half of September numbers very large with groups of 10+ birds commonly seen; numbers lessen somewhat during the rest of the winter, but it remains one of the commonest leaf warblers.	2
Blyth's Leaf Warbler	<i>Phylloscopus reguloides</i>	MM PM; with a few staying on for the winter; between 28.9.89 & 30.9.89 large numbers were seen in open Mx & MM.		3/4
Rubythroat	<i>Eriothacus calliope</i>	Tall, rank grass, edge of bamboo and grass.	W	4
Bluethroat	<i>Eriothacus svecicus</i>	Tall grass.	1 record from within the park on 19.12.88, although commonly seen in village fields, especially mustard, during winter.	5
Magpie-Robin	<i>Copsychus saularis</i>	S/B, Mx, Sc, open Mx, DM, fields.	R	1
Black Redstart	<i>Phoenicurus ochruros</i>	DM, open Mx, S/B, Sc, fields.	W; earliest seen mid-September, latest mid-April.	3
Stone Chat	<i>Saxicola torquata</i>	G, Sc, fields.	W; earliest seen mid-September, latest mid-March.	2/3
Pied Bush Chat	<i>Saxicola caprata</i>	Sc, fields.	Very few records; 1 from 26.12.88.	5
Dark-Grey Bush Chat	<i>Saxicola ferrea</i>	G, Mx, open Mx, DM.	W; first recorded from Bandhavgarh on 19.12.86; in the winter 1988-89 they were present in large numbers more than in previous years in 1989-90 numbers were very low; earliest seen mid-November, latest mid-March.	2/3
Indian Robin	<i>Saxicoloides fulicata</i>	DM, Sc, open Mx, fields open S/B.	R	2
Blueheaded Rock Thrush	<i>Monticola cinclorhynchus</i>	MM	W	4
Blue Rock Thrush	<i>Monticola solitarius</i>	DM; in rocky hilly country.	W	4

Common Name	Zoological Name	Habitat	Status	Abundance
Orangeheaded Ground Thrush	<i>Zoothera citrina</i>	MM, Mx, S/B; through winter prefers moist undergrowth but disperses into other habitats from end March.	R; Sv; numbers increase from April to August. Note: the subspecies found here <i>Z.c. cyanotus</i> or the Whitethroated Ground Thrush of the peninsula; there have been reports of <i>Z.c. citrina</i> but unconfirmed.	2/3
Plainbacked Mountain Thrush	<i>Zoothera mollissima</i>	MM, Mx, amongst bamboo always in hilly country.	W; previously unrecorded from central India but seen once or twice every winter.	5
Smallbilled Mountain Thrush	<i>Zoothera dauma</i>	MM, Mx, S.	W	3/4
Tickell's Thrush	<i>Turdus unicolor</i>	MM, Mx; in fruiting trees and bushes, especially <i>B.retusa</i> ; 1 bird seen feeding on pipal.	W; earliest seen end-October; latest early May.	3
PARIDAE				
Grey Tit	<i>Parus major</i>	All habitats.	R	2
SITTIDAE				
Chestnutbellied Nuthatch	<i>Sitta castanea</i>	Mx, S, open Mx.	R; 1 male seen disappearing into hole in sal with a grub 17.9.89.	3
Spotted Grey Creeper	<i>Salpornis spilonots</i>	DM	1 record from 1.11.86.	5
MOTACILLIDAE				
Indian Tree Pipit	<i>Anthus hodgsonii</i>	S/B, open Mx, G.	W; earliest seen end-September, latest mid-April.	2
Paddyfield Pipit	<i>Anthus novaeseelandiae</i>	G, fields.	R	2
Tawny Pipit	<i>Anthus campestris</i>	Fields, short grass.	W	4
Brown Rock Pipit	<i>Anthus similis</i>	Open DM in hilly country.	W	3
Forest Wagtail	<i>Motacilla indica</i>	Mx	1 record 10.5.90; V?	5
Yellowheaded Wagtail	<i>Motacilla citreola</i>	Edge of water, short marshy grassland.	PM/W; on 28.4.89, 24 birds were seen together, most in Br. plumage.	4
Grey Wagtail	<i>Motacilla cinerea</i>	Edge of water, MM, marshy grassland.	W; earliest seen end-August, latest end-April.	2
Pied Wagtail	<i>Motacilla alba</i>	T, jheels.	W	4
Large pied Wagtail	<i>Motacilla maderaspatensis</i>	T, jheels.	R	3

Common Name	Zoological Name	Habitat	Status	Abundance
DICAEDAE				
Thickbilled Flowerpecker	<i>Dicaeum agile</i>	Mx, MM, open Mx, S; commonly seen on <i>Viscum</i> .	R	2/3
Tickell's Flowerpecker	<i>Dicaeum erythrorhynchos</i>	Open Mx, Mx, S/B.	R	3
NECTARINIIDAE				
Purple Sunbird	<i>Nectarina asiatica</i>	Mx, open Mx, S when <i>Spatholobus roxburghii</i> vine is in flower; at other times on <i>Viscum</i> , <i>Woodfordia fruticosa</i> , <i>B. monosperma</i> , <i>Madhuca indica</i> and silk cotton flowers; on 13.9.89 1 male was seen trying to take a small <i>Nephila</i> spider from it's web but was unsuccessful; it then broke the twigs anchoring the web and then took the spider from the sagging web.	R; males in Br. plumage by mid February and in winter plumage by mid September; nests seen in G as well as various bushes in April.	2
ZOSTEROPIDAE				
White-eye	<i>Zosterops palpebrosa</i>	Mx, open Mx, S/B, Sc, MM; when <i>W. fruticosa</i> is in flower many birds seen with orange stained foreheads.	R; 1 immature seen on 28.8.89; large flocks seen through winter but by end April generally only pairs or small groups are seen.	2
PLOCEIDAE				
House Sparrow	<i>Passer domesticus</i>	Villages, guard posts.	R	2
Yellow throated Sparrow	<i>Petronia xanthocollis</i>	Sc, fields, open Mx, DM; large flocks of 50+ birds seen feeding on ground from January to April; they disappear between July & October.	R/LM?	1/2
Whitethroated Munia	<i>Lonchura malabarica</i>	Open Mx, Sc, in bamboo.	R	3
Whitebacked Munia	<i>Lonchura striata</i>	G, open Mx, S/B in grass understorey and bamboo.	R	3

Common Name	Zoological Name	Habitat	Status	Abundance
Spotted munia	<i>Lonchura punctulata</i>	G, open Mx, Sc, in grass understorey, S/B.	Sv, LM? seen from July to November; Br; 1 immature seen on 26.11.89 in tall grass.	3
FRINGILLIDAE				
Common Rosefinch	<i>Carpodacus erythrinus</i>	G, Mx, feed on bamboo seeds.	W	2/3
EMBERIZIDAE				
Whitecapped Bunting	<i>Emberiza stewarti</i>	Sc, Mx, amongst rocks.	W; 2 records - 26.3.85 & 19.12.86.	5
Crested Bunting	<i>Melophus lathami</i>	G	1 record of a pair seen on 22.4.89; V?	5

TABLE 1
BIRDS RECORDED BY N. K. SINHA AND GUY NORMAN BUT NOT BY THE AUTHOR

1	Brahminy Kite	<i>Haliastur indus</i>	Reported by N.K. Sinha; an unmistakable bird, probably a vagrant to Bandhavgarh.
2.	Black Partridge	<i>Francolinus francolinus</i>	Reported by N.K. Sinha; it could be that this species was confused with the somewhat similar painted partridge (<i>Francolinus pictus</i>), which is common. In all these years I have neither heard the call of the Black Partridge nor had it reported by anyone else.
3.	Indian Sandgrouse	<i>Pterocles exustus</i>	Reported by N.K. Sinha.
4.	Whitecheeked Bulbul	<i>Pycnonotus leucogenys</i>	Reported by N.K. Sinha.
5.	Ashy Wren-warbler	<i>Prinia socialis</i>	Reported by Guy Norman. This is normally a bird quite easily seen and it is surprising that apart from Norman, nobody else who has spent any length of time at Bandhavgarh has seen this bird. It could have been a case of mistaken identification or confusion with <i>P. hodgsonii</i> .
6.	Yellowcheeked Tit	<i>Parus xanthogenys</i>	Reported by Guy Norman.
7.	Eurasian Tree Pipit	<i>Anthus trivialis</i>	Reported by N.K. Sinha; could be a PM.
8.	Baya Weaver	<i>Ploceus philippinus</i>	Reported by N.K. Sinha; this bird is found close to the park, in the fields near Umari.
9.	Scarlet Minivet	<i>Pericrocotus flammeus</i>	Reported by Guy Norman. The red minivet commonly seen in Bandhavgarh is the Longtailed Minivet (<i>Pericrocotus ethologus</i>). The fact that this species is not mentioned in Norman's list could indicate a case of confusion between the two and misidentification.

TABLE 2
FIELD DESCRIPTION OF SOME UNCONFIRMED
SPECIES, WITH POSSIBLE IDENTITIES

1. *Description:* A very pale Accipiter, size - slightly smaller than Shikra; upper parts slate grey; underparts of wings strikingly white with no lines or markings; wing-tips - very black, with extent of black varying in different individuals; black tips seen in dorsal view as well with white mirrors at base of primaries. Throat and chin very pale with no mesial stripe. Rest of underparts with rufous wash fairly dark on some individuals and generally darker on flanks; eye - orange-red.

Habitat: Mixed Forest & forest edge.

Sightings: The First sighting of this bird was on 17.3.87. During the summer of 1987 quite a few birds of this description were seen in the park and some were seen carrying twigs and other material for a possible nest. It is not known how long these birds stayed - they were certainly gone by October. In 1988 the first sighting of this bird was on 19th March with regular and increasing sightings after that through April.

Identification: While it is possible that all these birds were very pale Shikra's (*A. badius*), it seems unlikely. For one thing very careful note was taken of underwing markings and on a number of occasions it was confirmed that these birds lacked even the faintest trace of any lines. They also lacked a mesial stripe.

The description does, however, fit that of the Chinese or Horsefield's Goshawk (*A. soloensis*).

2. *Description:* Small flycatcher, about 11 cm. General aspect - brown; darker on head and upper back; lower back, wings and tail more olivaceous. Undertail coverts and vent - white. Short, indistinct buff supercilium. Forehead - brighter brown; chin and throat - orange; breast browner; rest of underparts - muddied white. Bill - black; legs - flesh coloured. Not shy; habit of flicking tail while calling.

Habitat: Mature mixed riparian forest on bank of Charanganga stream, amongst dense undergrowth.

Sighting: Seen on 18.2.88.

Identification: Description fits female Rufousbreasted Blue Flycatcher (*Muscicapa hypertyra*). As per Ali & Ripley (1968 - 74), Bandhavgarh falls outside of the known range of this bird.

3. *Description:* Length 15 - 18 cm; upperparts - brown with

a touch of rufous; yellowish-grey bill, fairly thin and slightly curved. A very inconspicuous, pale supercilium. Short, dark eye - line. Long, broad tail very different from that of a *Prinia*; square-tipped when held together. Central tail feathers darker than the rest of tail. This is constantly rotated and flipped when the bird is sitting. Underparts - oliv, yellow wash to grubby cream; flanks rufescent buff. Undertail coverts - dirty white. Outer undertail feathers - barred, noticeably around the terminal half. Legs - pale, fleshy grey. Floppy flight.

Habitat: Grassland - marshy.

Sighting: 1 adult and 3 immatures seen on 1.9.89. 1 adult seen on 12.9.89.

Identification: The bird that most closely fits this description according to the HANDBOOK (Ali & Ripley 1968 - 74) is the Broadtailed Grass Warbler (*Schoenicola platyurus*). Although the habitat that this bird was seen in corresponds to that mentioned in the HANDBOOK, the range ascribed it is in the southern hills, nowhere near Bandhavgarh. This bird was not seen again.

4. *Description:* Forehead - blue; rest of underparts - blue-black. Underparts - dark blueblack. Tail - dark with white patches on outertail feathers near base. The bird was slowly raising and lowering it's tail while flaring it and the white patches were clearly visible.

Habitat: Mixed forest. Perched low on bamboo.

Sightings: Seen on 14.1.87.

Identification: The description fits that of a male White-tailed Blue Robin (*Cinclidium leucurum*). It is, however, well south of the range described in the Handbook (Ali & Ripley 1968 - 74).

It must be stressed that all the above records are from field sightings and identifications are tentative and cannot be treated as confirmed.

Of the 77 families of Indian birds, 53 are represented in Bandhavagr. Since only a relatively small area of the park was studied on a regular basis, it seems almost certain that more species will be added to this list in the future. The status and abundance of many species will also require considerable work to arrive at a more accurate understanding. As has been pointed out in other

studies of small areas, a species might utilise different habitats in different seasons and in the process move outside the limits of the area under study and so be classified a local migrant when in other circumstances - say for instance the expansion of the boundaries of the study area to include all the habitat types that it uses - it would be classified as a resident. These and other anomalies resulting from limited area studies, can only be adequately removed with the initiation of more extensive studies.

The fact that some species whose presence had hitherto been unsuspected in central India like the Plainbacked Mountain Thrush (*Zoothera mollissima*) which is a regular, if sparse, visitor, would indicate that a more thorough survey of the whole of the north-eastern quadrant of M.P. and adjoining Orissa, would yield some interesting information on the distribution patterns of Himalayan/sub-himalayan species. It is also evident that species like the Goldfronted Chloropsis (*Chloropsis aurifrons*), Dusky Leaf Warbler (*Phylloscopus fuscatus*), Longtailed Minivet (*Pericrocotus ethologus*), Dark-grey Bush Chat (*Saxicola ferrea*), etc. are in fact more widely distributed and abundant than previously thought.

Vultures are also doing well in Bandhavgarh and its surrounds. The Indian King or Black Vulture (*Sarcogyps calvus*), although rare in nature, is found in relative abundance here. An interesting difference between Kanha and Bandhavgarh national parks, is the almost complete absence of the Indian Longbilled Vulture (*Gyps indicus*) in the former, while in the latter it is just as abundant as the Whitebacked

Vulture (*Gyps bengalensis*). One reason for this difference is probably the fact that in Kanha there are no cliffs, which form the favoured roosting and nesting site for the Longbilled, whereas in Bandhavgarh these are extensively found.

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